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ABSTRACT

A team from the gerontology program at the University of Nebraska at Omaha collated random information gained from written and verbal observations of 156 respondents aged 52 to 94 who completed a problem-solving inventory. Comments were divided into two major categories: perceptions of problem-solving abilities and reaction to the problem-solving inventory. Most indicated they handled their daily problems well. Others felt they had no problems, the problems they experienced were in the past, they had others to take care of situations, or they had no control over their problems. They felt the methods they used for problem solving were the same ones used throughout their lifetime. Respondents found the abstract problems on the Likert-type instrument more complicated to handle than a concrete situation. The level of education had an impact on the individual's reaction to the instrument. Having six choices was difficult for many to comprehend, and it was learned that the aged individual could handle one function a day most effectively. Much of the data seemed to corroborate with results found by researchers in laboratory settings regarding rigidity, difficulty with a Likert scale, slowing reaction time with age, and preference for the concrete. (YLB)

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THE ELDERLY'S RESPONSE TO PROBLEM SOLVING: PRACTICE AND RESEARCH

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Abstract

There is a growing need for information on the elderly's perceptions of their problem-solving abilities. There is little in the literature that deals specifically with that topic in an applied sense. This paper discusses verbal and written responses of 156 older persons (52-94) who filled out a problem-solving inventory. It also relates the observations to the findings reported in the literature. There appears to be some corroboration. Information such as this is important for persons concerned with providing learning experience for the older population.

While pursuing additional data collection regarding the older population's perceived problem solving capabilities, a team from the Gerontology Program at the University of Nebraska at Omaha were intrigued by the verbal comments made by the 156 participants who filled out a problem solving inventory. The team found the responses so interesting that they decided to collate the random information gained through written and verbal observations and compare that with what has been reported in the literature. The comments which were made can be divided into two major categories: how the elderly perceived their problem solving abilities and their responses when filling out the problem solving inventory.

The Elderly's Perception of Their Problem Solving Abilities

Most of the aged individuals (52-94) indicated that they handled their daily problems very well. They felt that because of their vast experience this should be only natural and that they problem solve much in the same way as they always did. Some of the elderly felt that they had no problems. Others indicated the problems they experienced were in the past. Some perceived "problems" only in the light of crisis. Many felt that they had taken care of things and should not have to tackle problems. Others said that they had others to take care of situations. The latter responses came from elderly who were residents of retirement centers and had turned over this responsibility to either family members or professional staff. Other

elderly participants commented that they had no control over their problems. They had to accept things as they were. They felt powerless and had little control over their own lives.

As a general rule most of the people who took part in this research were not concerned with their problem solving capabilities. They felt that they were coping well with problems in later life. If they couldn't solve their problems, they felt them unsolvable or out of their control. They would just have to live with the situation. Most of the elderly expressed that they felt that the methods they used for solving problems were the same strategies utilized for dissolution of problems throughout their lifetime. If these techniques were workable then, they should be sufficient for present day problems. Many felt they were too old to learn new ways of doing things. They would have to live the best they could with the techniques they had. Because the elderly felt they were adequately handling their problems, they saw no need to learn new problem solving strategies.

Reaction to the Instrument

The instrument consisted of 35 six-point Likert-type items asking respondents to rate specific statements concerning their personal perceptions of their problem solving abilities. They were to indicate "strongly agree" through "strongly disagree" for the 35 items. The items reflected a general approach to problem solving rather than stating specific problems and asking for a response.

The elderly who took part in the research found it more complicated to work with an abstract problem than to handle a concrete situation. Since the items did not relate directly to or have meaning in their world today, many asked that a concrete example be stated so that they could respond to that specific situation. A great many of the participants also had difficulty responding because they felt that their response would depend on the importance and interest of the problem to them at that time.

The level of education also seemed to have an impact on how the aged individual reacted to the instrument. Many were reluctant to fill it out because they "did not have much schooling." Wording of the sentences, unfamiliar vocabulary along with the novel "test-like situation" made participants with limited formal education somewhat uncomfortable. Many equated it with being in school and they did not want to go to school. Some of the elderly persons were educated overseas and although they spoke the English language well, they had difficulty reading it. The facilitators needed to give these people more individualized help. Most of the individuals exhibited a great deal of caution while completing the inventory.

Having six choices was difficult for many to comprehend. Many wanted to answer with either a yes or no response. For the most part those with a higher educational level and/or extensive business background exhibited less reluctance to tackling the

instrument and seemed to handle it without any difficulty. The apparent redundancy in statements seemed to confuse or upset the respondents. It mattered greatly that they answered similar statements in the same way. It was important to their self esteem that they perform well.

The time necessary for completion of the instrument varied greatly. Generally, those who were older required more time. Some of the elderly who had been ill or who felt that they had a limited amount of energy were less willing to participate. A few refused to answer because the inventory was too long; others did not complete all of the 35 responses; and still others said that they would not have agreed had they known the length. The older the person the more reluctance. This could be contributed to several factors such as frailty and unfamiliarity with such testing procedures.

During the collecting of data, it was learned that the aged individual could handle one function a day most effectively. If a person had a commitment for later in the day, this distracted from other tasks that were being performed prior to that commitment. Many times the people selected only the task that was most important to them. They avoided the anxiety or stress which might be involved in arranging more than one activity in their day. Women as a whole were more responsive in assisting with the research. They liked being part of a worthy endeavor. Men were more reluctant to participate in the problem solving study. Many indicated that they were more interested in

socializing or "didn't have the time." Some men did not want to take time from planned activities and others felt that acquiring knowledge of how they solved their problems was not important or "nobody's business."

Responses as Reflected in the Literature

Much of the data compiled through observation by the UNO Gerontology Program personnel seems to corroborate with results found by researchers in laboratory settings.

Rigidity, which is the inability or refusal to switch from a previously induced strategy in an initial task to a more efficient method was displayed by older participants in the research group. Rigidity has been thought to influence mental functioning by causing people to persist in habitual ways, long after evidence shows that to continue in such a manner is unprofitable (Botwinick, 1973). Studies by Luckin (1942), Higlin (1956) found that older subjects were more rigid than younger subjects when performing tasks. A great many of the research participants refused or were unable to conceptualize that by changing or learning a new problem solving process their problems could be more manageable. Although they might have more control over their life, they continued to perceive that their old ways were the only techniques they needed to use. Previous research has also suggested that rigidity is caused by cultural and experiential factors as well as age changes making aged individuals more rigid than their younger counterparts. This

was observed in the research group. The younger participants exhibited more flexibility.

Findings by Friend and Zubik (1958) coincide with facilitator observations of the research group. With increasing age, participants became more inflexible and tended to choose absolutes. Many of the older subjects wanted to answer either yes or no. They did not want to consider other possible answers proposed through the use of a Likert Scale.

The findings of this field research seem to reinforce evidence that education is an important variable in determining how well an aged individual problem solves. Research (Denny, 1974) (Denney and Palmer, 1981) indicates that education and occupational experiences are a prevailing factor in how well an older individual will solve both abstract and everyday problems. Schaie's findings also propose that formal education is an important factor in determining the experience one has with complex problem solving strategies. Education also plays a role in an older person's tendency towards cautiousness and risk taking as well as in decision making. Those within the testing group who had a limited education demonstrated more caution and reluctance to complete the research instruction because of their unfamiliarity with testing and complex problem strategies which may be equated to a more school-like-situation.

As stated earlier the older participants in the study took a disproportionately longer time to complete the survey than their younger counterparts. Waugh and his associates (1973)

concluded that slowness in reaction is due to the inefficiency in initiating responses rather than difficulty in choosing responses. Cautiousness may play a part (Botwinick, 1973) in slowing of reaction time. Older people seemed to be slower only when they had time to be cautious. Tendency toward care and accuracy which are characteristic of this group may result in the slowing of reactions. Older persons tend to spend a great deal of time checking for accuracy. As previously stated, the research participants were concerned about accuracy.

Contrary to laboratory testing (Welford, 1958; Jerome, 1962) participants of the field research group made very few redundant inquiries. Because of their desire for accuracy they needed to retain information for later answers causing them some confusion. These behaviors would seem to add validity to studies by Botwinick (1967, 1978), Craik (1977), and Talland (1968) that indicate that aspects of short-term memory deteriorates with age. By increasing the complexity of a problem, a greater demand is put on the short-term memory system causing an overload resulting in less efficient performance (Welford, 1958).

Bromley (1957) found that with an increase in age there is an inclination for older research subjects to choose concrete and literal interpretations and to avoid any inferences of an abstract nature. Botwinick (1978) concluded that not only did the aged prefer the concrete over the abstract, they tended to perform in "a concrete fashion." A manifestation of this was

evidenced when research participants asked for specific situation statements to which they could relate when answering questions on the research instrument. They experienced great difficulty in responding when questions were of no significance in their life or were not of a concrete nature.

The findings of the UNO Gerontology personnel supported the research on adults' perceptions of their own cognitive development during adult years (Williams, et al., 1980). The data compiled in the William's research indicated that the elderly (76%) felt their abilities to reason, think, and solve problems had increased with age. These findings were echoed by participants of the UNO study when they stated that they felt experience throughout life had increased their problem solving capabilities.

Conclusion

Many of the observations made by the UNO Gerontology team seem to concur with previous laboratory-oriented research done in the area of problem solving in the elderly. Although there seems to be concurrence, it is too soon to draw any decisive conclusions. Research in the area of applied problem solving capabilities of the elderly is new and very limited. The continuation of field research is necessary to insure adequate knowledge of how aged individuals handle daily problems and to learn if their needs to be an intervention to aid in the retention and/or enhancement of problem solving capabilities of the older person.

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